

Name: _____

pa1106: Factoring with box when $a = \text{prime}$ (v9)

Example

Use the box to factor $2x^2 - 9x - 18$.

Guess and check, based on factor pairs of -18 , until you find the pair that results in a linear coefficient of -9 after combining like terms.

*	x	-6
2x	$2x^2$	$-12x$
3	$3x$	-18

$2x^2 - 12x + 3x - 18$

Combine like terms.

$2x^2 - 9x - 18$

ANSWER: $(2x + 3)(x - 6)$

Question 1

Use the box to factor $7x^2 + 44x + 45$.

*	x	
7x	$7x^2$	
		45

ANSWER:

Question 2

Use the box to factor $3x^2 - 8x - 35$.

*	x	
3x	$3x^2$	
		-35

ANSWER:

Question 3

Use the box to factor $5x^2 - 21x + 18$.

*		

ANSWER: